Amendments to the Claims

This listing of claims will replace all prior versions, or listings, of claims in this application.

Listing of Claims

1-12. (cancelled)

13. (original) A process for the preparation of an optionally protected β-L-2'-deoxythymidine comprising the steps of:

(a) reacting a L-2-deoxyribose with an alcohol to form of a L-1-O-alkyl-2-deoxyribose;

(b) optionally protecting the remaining free hydroxyls of the L-1-O-alkyl-2-deoxyribose to form an optionally protected L-1-O-alkyl-2-deoxyribose;

(c) reacting the optionally protected L-1-O-alkyl-2-deoxyribose with an acyl halide that generates an anhydrous acid halide *in situ* to form an optionally protected L-1-halo-2-deoxyribose;

(d) coupling the optionally protected L-1-halo-2-deoxyribose with silylated thymine to form an optionally protected β-L-2'-deoxythymidine; and then

(e) deprotecting the optionally protected β-L-2'-deoxythymidine, if necessary, to obtain a β-L-2'-deoxythymidine.

14. (original) The process of claim 13, wherein the coupling reaction is performed in chloroform.

15. (original) The process of claim 13, wherein the silylated thymine is added in excess.

16. (original) The process of claim 15, wherein the silylated thymine is added in a 2 molar excess.

17. (original) A process for the preparation of an optionally protected β-L-2'-deoxyuridine comprising the steps of:

(f) reacting a L-2-deoxyribose with an alcohol to form of a L-1-O-alkyl-2-deoxyribose;

(g) optionally protecting the remaining free hydroxyls of the L-1-O-alkyl-2-deoxyribose to form an optionally protected L-1-O-alkyl-2-deoxyribose;

(h) reacting the optionally protected L-1-O-alkyl-2-deoxyribose with an acyl halide that generates an anhydrous acid halide *in situ* to form an optionally protected L-1-halo-2-deoxyribose;

(i) coupling the optionally protected L-1-halo-2-deoxyribose with silylated uracil to form an optionally protected β-L-2'-deoxyuridine; and then

(j) deprotecting the optionally protected β-L-2'-deoxyuridine, if necessary, to obtain a β-L-2'-deoxyuridine.

18. (original) The process of claim 17, wherein the coupling reaction is performed in chloroform.

19. (original) The process of claim 17, wherein the silylated uracil is added in excess.

20. (original) The process of claim 19, wherein the silylated uracil is added in a 2 molar excess.

21-68. (cancelled)

69. (new) The process of claim 13 or 17, wherein the alcohol is ethanol.

70. (new) The process of claim 13 or 17, wherein the alcohol is methanol.

71. (new) The process of claim 13 or 17, wherein the L-2-deoxyribose is reacted with an alcohol in the presence of an acid.

72. (new) The process of claim 71, wherein the acid is an organic sulfonic acid.

73. (new) The process of claim 72, wherein the acid is toluene sulfonic acid.

74. (new) The process of claim 72, wherein the acid is methyl sulfonic acid.

75. (new) The process of claim 71, wherein the acid is a carboxylic acid.

76. (new) The process of claim 13 or 17, wherein an acid scavenger is used to quench the acid after formation of the L-1-O-alkyl-2-deoxyribose is complete.

77. (new) The process of claim 76, wherein the acid scavenger is selected from the group consisting of triethylamine, pyridine and dimethylaminopyridine.

78. (new) The process of claim 13 or 17, wherein the remaining free hydroxyls are protected with an acyl group.

79. (new) The process of claim 78, wherein the acyl group is toluoyl.

80. (new) The process of claim 13 or 17, wherein the acid halide is an acid chloride.

81. (new) The process of claim 80, wherein the acid chloride is acetyl chloride.

82. (new) The process of claim 13 or 17, wherein the acyl halide generates an anhydrous acid halide *in situ* by reaction with sub-equivalent amounts of an alcohol.

83. (new) The process of claim 82, wherein the alcohol is methanol.

84. (new) The process of claim 13 or 17, wherein the optionally protected L-1-halo-2-deoxyribose crystallizes as it forms.

85. (new) The process of claim 13 or 17, wherein the β-L-2'-deoxythymidine is deprotected by reaction with sodium methoxide in methanol.